Castlemaine Naturalist

May 2021

Vol. 46.4 #497

Monthly newsletter of the Castlemaine Field Naturalists Club Inc.

Brush-tailed Phascogale photo by Marilyne Crestias

Fabulous Phascogales – Survival in a modified Landscape

The Box-Ironbark forests of Central Victoria, including the Castlemaine – Bendigo area, support the greatest concentration of Brush-tailed Phascogales (*Phascogale tapoatafa*) in Victoria. The geographic range of this species over Victoria has contracted since European settlement and the Phascogale is now listed as Vulnerable on the Victorian Advisory List of Threatened Species.

At our April meeting, Jess Lawton from Connecting Country gave us an overview of the biology of the Phascogale and described her PhD studies at La Trobe University into the habitat requirements of this elusive marsupial.

The Brush-tailed Phascogale is a small to medium sized carnivorous marsupial in the Dasyuridae family, a group that includes antechinus, quolls and the Tasmanian Devil. Like other members of this family, Phascogales are short-lived, with all males and the majority of females only surviving for a single breeding season. This, together with their large home range, makes them vulnerable to regional extinction when adverse conditions limit breeding in isolated populations.

Phascogales require hollows for shelter and breeding. Within their home range they will use up to 30 hollows which must be fit for purpose: a roomy interior and a small entrance to prevent access by larger animals. Mature trees are preferred. These are similar requirements to those for Krefft's Gliders (previously named Sugar Gliders in our region, see A rare discovery: we found the sugar glider is actually three species, but one is disappearing fast (theconversation.com)), but the messy Phascogale nests distinguishes them from the tidy leafy nests of the Krefft's gliders. The home range for a Phascogale in our region is approximately 100ha for males and 40-50ha for females.

The major threats to Phascogales are loss of habitat due to farming practices, urban encroachment and firewood collection, disturbance from forestry activities, mining and fire, climate change impacts such as drought and predation from foxes and cats. They are also directly persecuted due to claims that they attack poultry, although there is little reliable evidence for this and most claims are anecdotal. As a result of all these threats, the species is in decline in Victoria.

Connecting Country has established a nest box program that aims to provide more information about the requirements of this species and to hopefully stem the population decline. 450 nest boxes designed for Brush-tailed Phascogales have been installed across the Mount Alexander region.

The nest box study along with other work has helped define the optimal habitat for Phascogales. This is generally on an upper slope with rough-barked trees such as Box and Stringybarks. Gullies where the trees are more often smooth-barked gums (Red Gums and Yellow Gums) are not favoured, most likely because these smooth-barked trees are less easy to climb. Rough-barked trees also provide more crevices for Phascogale food. Another major factor in the survival of the Phascogale is the presence of leaf litter and fallen branches and logs that provide habitat for the Phascogales' preferred food, mainly invertebrates such as insects and spiders. Of course, the availability of suitable hollows is essential.

This study has important implications for land managers: Phascogales use nest boxes on rough-barked trees to supplement natural tree hollows, Phascogales will use both large and small patches of forest so retaining all forest is important, and Phascogales are more active where there is a good cover of leaf litter and fallen branches which should be preserved.

Although Phascogales are still widespread locally in the Mount Alexander region, we need to keep it this way by providing suitable nest boxes in the right trees, providing foraging structure and confining pets by walking them on a lead, keeping them inside at night and having cat enclosures for pet cats. It is also essential that you care for your local forest.

Finally, Jess explained how volunteers can help monitor Connecting Country's nest boxes during autumn, the mating season. If you want to know more about this intriguing marsupial and how to get involved with this project, please contact Jess at Connecting Country.

Thanks Jess for giving us an enthusiastic insight into the world of the Brush-tailed Phascogale and how we can help its survival in our modified landscape.

Euan Moore

Typical Brush-tailed Phascogale nest - untidy nests made out of shredded bark, feathers, wool or fur, and with shiny black scats.
(*photo Connecting Country*)

Typical Krefft's Glider nest - clean, neat, ball or bowl-shaped nests made out of eucalyptus leaves with no scats.

(*photo Connecting Country*)

Excursion Report – 10 April 2021 – Providence Gully Rd, Yandoit

by Peter Turner and Jenny Rolland

As nine members, two visitors and leader Jess Lawton left Castlemaine to check Phascogale nest boxes on a private property in Yandoit, we wondered whether rain would again affect the afternoon – but it remained dry with a cold wind. Four members joined us at Newstead before we drove down Providence Gully Rd past several properties. The first stop was opposite the wedge of Box woodland, reached by walking across a sheep paddock. Jess in the Connecting Country 4WD with ladder joined us after finding an unlocked gate.

Three nest boxes had been installed in the woodland, 50m apart, in 2010, and were last checked in 2018. Jess Lawton reminded the group of key factors preferred by Phascogales mentioned in her talk – plenty of leaf litter and fallen timber to encourage insects, and rough-barked trees such as Box and Stringybark for easier climbing. The first box Jess examined had a typical, recently used, Phascogale nest – making the afternoon worthwhile. The second had been damaged, but had some signs of an old nest. The third, with entry hole chewed larger, revealed a sleepy Brush-tailed Possum! Jess recorded photos inside each box on an iPad so we could all see the evidence, and other data such as tree diameter (using a nifty DBH tape measure) were recorded on the survey sheets.

By then it was time for a warming cuppa back at the cars, sheltering from the wind, and time for most of us to head home. Jess wanted to check two other sites, so Jenny, Euan, Marli, Jackie and Noel stayed to assist. The next site was along a creek-line where there were large River Red Gums. Krefft's Gliders can 'fly' between trees and don't need to climb up the tree trunk so smooth-barked trees can be used. True to form, Krefft's Gliders were found in one of the three boxes. The nest was typically tidy for Krefft's Gliders with two nestled in a round ball of green eucalypt leaves.

The final site was some distance away at the other end of the property on a ridge with good quality grassy woodland. On examining the second of the three boxes there, Jess's smile said it all! One beautiful Phascogale curled up in its messy nest. As dusk started to fall, the small group headed home, warmed by that wonderful sighting. Thank you Malcolm for access to your property and to Jess for a most informative and enjoyable excursion!

Right:
Jess checks a box while Euan and Marli measure the tree diameter. [Photo Noel Young]

A Brush-tailed Possum was found in one box with an enlarged entrance hole

Krefft's Gliders were found in a nest box attached to a Red Gum in the gully

That smile says it all! [photo by Jenny Rolland]

One Phascogale was discovered late in the day. [All nest box photos by Jess Lawton]

May Observations (May 1943)

George Broadway

Specimens observed by the readers of 'WILDLIFE" magazine in May 1943. "Wildlife" started in 1938. Many specimens kept being sent in despite having been identified several times already.

Insects

Tongala: Green Vegetable Bug, *Nezara viridula.* An imported pest which has recently reached Victoria (1943). Attacks mainly tomatoes and beans, but sometimes other crops. The young are dark at first but as adults when they develop wings they become light green. Difficult to kill, pyrethrum dust is best. Also Wentworth and Malvern

No address: Your "Porcupine elephant" was a gumtree weevil or Elephant Beetle (Mar'17) The "trunk" has a pair of biting jaws at the end and it does considerable damage to the roots of trees.

Boort: Your caterpillar from the Swan plant had turned into a pretty jade green chrysalis with tiny golden markings by the time it reached us. This was the larva of the Wanderer Butterfly which has found its own way to Australia but is not likely to become a pest as it feeds only on the Swan plant (Dec '16)

Also Iona: and Malvern: and Ormond

Caulfield: Froghopper; *Cicadella.* which means "little cicada". A plant sap sucker.

Carlton: The small critter feeding on the wing of a moth was the larva of the carpet or museum beetle, *Anthrenus.* (Jy'16) Feeds on organic matter of animal origin and is a constant worry among museum specimens as well as in family carpets and stored furs and woollens. Also Albert Park

Corack E: Two specimens of the Tree Cricket, *Paragryllacris.* (Jn '10) The long "tail" is used for injecting eggs into trees.

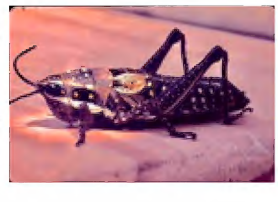
Mildura: Your specimen is a Spider-beetle, (*Ptinus fur)* so unlike the ordinary run of beetles as to make it difficult to recognize it as a true beetle. Can be a pest in houses as it will attack foodstuffs, furs and woollens, carpets and a variety of other things (Ap '17)

Penshurst: the object found in the pea-pod was the chrysalis of a moth. Sadly we will never know what sort of a moth because the chrysalis was eaten by a mouse.

San Remo: Convolvulus Hawk Moth (Ap '17) Caterpillars with a diagonal stripes on their sides and a harmless spike on the tail. They eat Convolvulus leaves.

Hampton: The big brown moth was a Ghost Moth, the lovely white satin moth was *Thalaina clara*

Mildura: Strange beetle with hard rugged body and long front legs which seemed to go by clockwork was the Orange Weevil, frequently a pest in citrus orchards.



Red Cliffs: Alpine Grasshoppers *Monistria conspersa.* So called because often found above the snow line but also found on the plains. The wings never grow beyond the rudimentary stumpy stage.

Dimboola: Chrysalis of the Lesser Wanderer Butterfly. Like the Wanderer but smaller with orange-buff wings with black and white markings. Feeds on cotton plants and milkweeds.

Sth Yarra: Large Crane-fly, *Plusiomyia sp.* Larvae live in damp ground and feed on vegetable matter.

Rosebud: Saunders Case-moth (Oct '16) The sticks on the outside are for camouflage and protection. Female spends life in cocoon and lays eggs in it. The male is a small very swift-flying moth.

Mt Aba S.A.: Large Desert Grasshopper, wingless even in the adult stage, (like the Alpine Grasshopper). Nothing is known of the life history.

Broadford: Lacewing Fly, adult of the Ant Lion (Jn '16)

Ascot Vale: Rat-tailed maggot, larva of the Bee-fly which resembles a bee and buzzes like one to deceive possible enemies. Seeks insect prey among flowers so is useful. The long tail of the larva is used as a snorkel as it lives in water but needs to breathe air.

Photo Observations

Mark Anderson was on a Field Naturalists Club of Victoria field trip:

I spent Easter on the Bael Bael grasslands and surrounding area. 7 Plains Wanderer - 2 female (now banded) , 1 juvenile sex unknown (now banded), 1 male with 3 chicks all of which is really good news and better still to be able to see breeding success. Lots of other things and birds including Banded Lapwing (1 banded) and many Stubble quail (at least 1 banded). The weather was great.

Banded Lapwing

Curl Snake

Fat-tailed Dunnart

Plains Wanderer

Noel Young

Powerful Owls are back in the CBG! I first noticed a lone Owl on April 1st, but shortly after that there was a pair, and they have been close companions ever since. Let's hope they successfully breed this winter.

I managed to get this portrait on 25th of April. The male has the characteristic flat-top hairdo and longer square-ish tail.

The last Powerful Owl I saw in the Gardens was in January 2019.

Jill Williams

These 3 came into the house when the rain started. A quick photo of each before shuffling them outside.

1 Wolf spider with egg sac.
2 Common eastern froglet, *Crinia signifera*
3 Possibly another *Crinia sp.*

I love this. Rescued from a puddle of water. It must have been newly eclosed from pupal case and I watched it develop to the final stage before putting it outside. I haven't been able to identify it but it could be of the 'Tiger' family of moths.

[This moth is a female Boisduval's Autumn Moth, Oenosandra boisduvalii. The males have speckled grey wings while the females have the spectacular black and white pattern shown here. - Euan Moore]

Denis Hurley A surprise visitor to the rat trap

Rosemary and Peter Turner

A male Spotted Pardalote spent several days recently attacking the apparent enemies inside most of the windows of our house. He took no notice of us peering at him from within, but continued pecking at the glass while standing on the sill, or flying up the window against the glass. We were very concerned - eventually a combination of lowering the outside blinds on some windows, and hanging some cloth garden ties on the outside of the main target window persuaded him to desist. We are interested to hear about other solutions to similar problems.

Other Observations

Chris Timewell

18 April 2021 - Two adult Blue-faced Honeyeaters feeding two fledglings. The young birds were maybe 1-2 weeks out of the nest. Along rail trail, near intersection of Pyrenees Hwy and Maltby Drive, Castlemaine.

18 April 2021 - Shining Bronze-cuckoo calling while perched in large pine tree along Saint St, Castlemaine. Also heard here one week earlier. Would usually have migrated north by this time.

Birds of Sutton Grange April 2021

Nigel Harland

Superb Fairywren	Red-browed Finch	White-browed Scrubwren
Australian Magpie	Australian Raven	Laughing Kookaburra
Yellow-tufted Honeyeater	Sulphur-crested Cockatoo	Long-billed Corella
Crimson Rosella	New Holland Honeyeater	Welcome Swallow
Red Wattlebird	Yellow-faced Honeyeater	Galah
Yellow-rumped Thornbill	Striated Pardalote	Pied Currawong
Boobook Owl	Wedge-tailed Eagle	

Three Wedge-tails being mobbed by Ravens and Magpies.
Nice to hear a Boobook nearby.

CFNC members help out with a Castlemaine Secondary College field trip in Kalimna Park

On Tuesday April 22, five CFNC members enjoyed a "walk in the park" with year 11/12 environmental studies students from the Castlemaine Secondary College. We had been asked by Cole Waters, their Outdoor Education teacher, to assist the students with learning how to identify some flora and fauna, including weeds, as well as with appreciating the impact of humans on the Kalimna Park environment over the years. Geraldine Harris, Christine Kilmartin, Denis Hurley, Euan Moore and myself, led small groups of 3 or 4 students along the Kalimna Circuit walk. Initially planned to do the whole loop track, we only covered about 100-200 meters in the hour, such was the interest in all the plants, insects, birds etc at every step.

The students had a set of questions to ask us, including why we were passionate about the environment! It was a wonderful opportunity to share our enthusiasm for the natural values of the park, and we hope we inspired them to continue their appreciation of this patch of bush on their door-step. Just to add to the excitement of the wildlife in the park, near the end of the walk, a bird dropped a very large Stick-insect near one group of students. This creature (later identified by Euan as a "Children's Stick-insect") was proudly brought back to show the rest of the students and their teacher. A definite highlight of the Field Trip!

- Jenny Rolland

CSC students admire the large Stick-insect found on their Kalimna Park Field Trip with CFNC members (*photo by Jenny Rolland*)

Children's Stick-insect at Kalimna Park (*photo by Euan Moore*)

Recording your observations using iNaturalist

The CFNC has been encouraging the use of iNaturalist to record your sightings of flora and fauna in our region and elsewhere. To this end we have run a number of successful workshops to help people get started with iNaturalist. So far about 20 members and friends have attended one of these workshops.

The iNaturalist system is proving very useful for collecting information in the local context. Sightings entered into iNaturalist, once verified, flow through to databases such as the Atlas of Living Australia (ALA) and the Victorian Biodiversity Atlas (VBA). This article on ALA describes the valuable contribution that citizen scientists' observations make to building our knowledge of local flora and fauna.

CFNC along with other Field Naturalist Clubs is planning to take part in this year's

Great Southern Bioblitz in late October. This is a way to obtain a snapshot of the flora and fauna in regions across the Southern Hemisphere. As well as collecting data, it also promotes some friendly rivalry between cities and regions and encourages the wider public to become more interested in, and value, their natural environment. There will be more information about the Great Southern Bioblitz 2021 later in the year but in the meantime, log on to iNaturalist, add some sightings and help identify sightings from other people.

- Euan Moore

Vale Joy Weatherill

Joy Weatherill joined our club in 2004, with some other bird watching enthusiasts from her area, and regularly travelled from Gisborne to meetings and excursions over many years. Joy was diagnosed with stage four cancer in March 2020 and sadly passed away on March 23, 2021 aged 76.

Joy was a keen birdwatcher and traveller and we enjoyed many of her lovely photos and reports of her travels. Joy taught art at the secondary college in Kyneton, where she met her husband Jim. They spent their early married years in New Guinea where their first child Andrew was born. Joy taught pottery in New Guinea and helped the locals develop their pottery industry.

Joy was a talented artist who used all types of media to record her love of the natural world. She was a keen gardener and worked hard at building a beautiful garden habitat for native wildlife on her large block in Gisborne. This garden featured an Italian fresco-style wall which she painted herself. After one of her trips to the UK she decided to become a bell ringer and she travelled regularly to Geelong and became a member of the church bell ringing team for a number of years.

Her memorial service in Gisborne began with a recording of her bell ringing and concluded with an invitation to choose a potted native plant on the way out in remembrance of Joy.

- Geraldine Harris

Joy (centre) on a CFNC excursion to Riddells Creek in 2011

Guest Speaker Friday May 14

Geoff Williams

Understanding Rakali – Australia's "Otter"

The platypus is widely recognised as a uniquely Australian animal. By comparison, relatively few people know that the Australian water-rat (*Hydromys chrysogaster*) is a genuine native rodent that was a natural part of our environment long before the arrival of its pest cousins - the black rat and brown rat. The water-rat (also known as rakali) possesses a thick coat of soft fur, splendid whiskers, blunt muzzle, partly webbed hind feet and furry tail, all helping to create a resemblance to a miniature otter. Geoff Williams from the Australian Platypus Conservancy will outline the biology and key conservation requirements of this fascinating native mammal and provide tips on how to go about spotting it in local waterways.

Geoff Williams helped to establish the Australian Platypus Conservancy in 1994. He has since conducted nearly 500 all-night platypus trapping surveys and been involved in various special studies of platypus and also rakali/Australian water-rats. Prior to his work with the APC, Geoff was Director of Healesville Sanctuary for five years from 1988 to 1993 and, before moving to Victoria, was Assistant Director of Taronga Zoo from 1985 to 1988.

FIELD TRIP Saturday May 15 *NB 8 am start

Join Geoff on a field trip along Campbells Creek to learn how to look for rakali and platypus in the wild. He will also talk about opportunities for becoming involved in the Australian Platypus Monitoring Network (APMN) to help track how these species are faring in local waterways.

From your Committee

Roadside clean-ups. Help keep our stretch of the Pyrenees Highway clean!

Meet near Tait's Decorative Iron, Pyrenees Highway, Castlemaine at 9am.

Garbage bags and red safety vests supplied. Wear sturdy footwear and bring your own gloves and water.

Please contact Geoff Harris (mob 0418 392 183) if you can help.

Next clean-up is on Monday 17th May.

CFNC Project Working Parties

Your Committee is setting up several working parties to tackle some of the projects that need attention. If you are interested in assisting with one or more of the following topics, please contact our Secretary, Jenny Rolland by email to castlemainefnc@hotmail.com.

Vegetation surveys - PhotoPoints

CFNC information leaflets - Conservation issues

Education – assisting Castlemaine Secondary College environmental program

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Club

COMING EVENTS

Monthly meetings will continue to be held on-line via ZOOM until further notice, commencing at 7.30pm. If you have registered for our previous webinar meetings you will be sent the link for registering with Zoom. If you have not joined before and wish to attend, please email Peter Turner at munrodsl@iinet.net.au

Our guest speaker will follow the usual 'observations' session when members can share recent interesting sightings with an option to show a photo or two. If you have photos to be shown please email JPEG file(s) to Euan Moore at calamanthus5@bigpond.com by Noon on the day of the meeting.

Excursions will be held this year (subject to any changes in COVID restrictions) on the Saturday after the monthly meeting. Meet at the Octopus (opposite the motel in Duke St) for departure at 1.30pm unless otherwise advised.

Fri May 14 Meeting: Speaker - Geoff Williams (Platypus Conservancy) 'Rakali'

Sat May 15 morning Excursion: Campbells Creek, 'Rakali and platypus habitat' with Geoff Williams. **Meet at Octopus at 8 am – early start for early rising animals!**

Mon May 17 Roadside clean-up

Fri Jun 11 Meeting: Speaker – Julie Radford (Bush Heritage) 'Seeds of Resilience'

Sat Jun 12 Excursion: Nardoo Hills, 'Rare orchid search' with Julie Radford (All day excursion)

Fri Jul 9 Meeting: Speaker - Greg Kerr (Nature Glenelg Trust) 'Shinglebacks'

Business meetings - third Thursday of each month.

Club website (Web master: Ron Wescott) - http://castlemainefnc.wordpress.com/

Castlemaine Naturalist - email newsletter material to: newsletter.cfnc@gmail.com

*Deadline for the June edition is 28th of May.

Subscriptions for 2021
Ordinary membership: Single $35, Family $50
Pensioner or student: Single $25, Family $30
Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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